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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,718	07/25/2000	Shinichi Yoshimura	112857-062	6804
29175	7590	07/27/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			KAO, CHIH CHENG G	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624,718

Applicant(s)

YOSHIMURA, SHINICHI

Examiner

Chih-Cheng Glen Kao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyawaki et al. (US Patent 5726439).

2. Regarding claims 1 and 6, Miyawaki et al. discloses an apparatus and method comprising light reception means and a step (col. 2, lines 48-53), operating units and a step for operating a signal by the light reception means being based on at least one of a clear signal and a transfer signal (Fig. 9A, at least #304-306), a plurality of outputting units for a step, each receiving a result of an operation of a corresponding one of the operating units and outputting the result (Fig. 9B, #341-343), and timing adjustment means and a step for adjusting a timing at which the result of the operation is output from the outputting units, said timing adjustment means using a control signal other than the clear or transfer signal (Fig. 9B, #349).

3. Regarding claims 2 and 7, Miyawaki et al. further discloses storage means and a step for storing a plurality of signals at different timings (Fig. 9A, transistors inside #304).

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4. Regarding claims 3 and 8, Miyawaki et al. further discloses operating units and a step for executing a comparison operation (Fig. 9A, comparator).
5. Regarding claims 4 and 9, Miyawaki et al. further discloses an arithmetic operation for determining a maximum or minimum value (col. 10, lines 28-30).
6. Regarding claims 5 and 10, Miyawaki et al. further discloses outputting units outputting results of an arithmetic operation (Fig. 9A, #311) for each of the rows or columns by timing adjustment means (Fig. 9B, #349).
7. Regarding claims 11 and 12, Miyawaki et al. discloses an apparatus and method comprising light reception means and a step (col. 2, lines 48-53), operating units and a step for operating a signal by the light reception means being based on at least one of a clear signal and a transfer signal (Fig. 9A, at least #304-306), wherein operation includes a plurality of modes selected based on a control signal other than the clear and transfer signal (Fig. 9A, #310), and wherein the plurality of modes are represented by different expressions from each other (col. 9, lines 46-52).
8. Regarding claim 13, Miyawaki et al. further discloses operating units performing an arithmetic operation (Fig. 9A, #311).

9. Regarding claims 14 and 15, Miyawaki et al. further discloses operating units storing (Fig. 9A, transistors in #304-306) and operating (Fig. 9A, comparator) a plurality of photoelectrically converted signals (col. 2, lines 48-53) at predetermined timing intervals (Fig. 2 and 5) in the order in which signals are received.

Response to Arguments

10. Objections to the claims in the Office Action mailed March 24, 2004, have been withdrawn in light of the Amendment filed June 28, 2004.

11. Applicant's arguments filed June 28, 2004, have been fully considered but they are not persuasive.

Regarding Miyawaki et al., Applicant argues that Miyawaki et al. does not disclose "timing adjustment means for adjusting timing at which the result of the operation is output for each of said plurality of elements from said outputting units, said timing adjustment means using a control signal other than the clear signal or the transfer signal in the timing adjustment." The Examiner disagrees. As noted by Applicant, the timing generation circuit provides a straightforward timing pulse. By the Examiner's interpretation, this pulse, in the broadest sense, is an adjustment in timing, in that the pulse is adjusted from an off-state to an on-state and vice versa. Thus, timing adjustment is disclosed and would have a control signal other than the clear signal or the transfer signal to perform the timing adjustment, such as a drive signal. In conclusion, Miyawaki et al. does disclose "timing adjustment means for adjusting timing at which the result of the operation is output for each of said plurality of elements from said outputting units, said timing adjustment means using a control signal other than the clear signal

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or the transfer signal in the timing adjustment.” The claimed invention remains rejected as being unpatentable over Miyawaki et al.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER